



# Making Training Accessible: Universal Instructional Design

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# Universal Design

## o Need for barrier-free physical environments

- Ramps
- Automatic doors
- Curb cuts
- Braille labels on elevator buttons
- Larger bathroom stalls





# Universal Design Principles

- Equal access
- Flexible
- Simple and intuitive
- Works in any environment
- Tolerance for error
- Low physical effort
- Size and space for approach and use





*People soon realized that what is good for people with disabilities is good for everybody.*

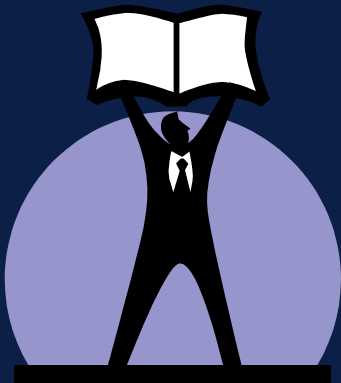
Center on Self-Determination, Oregon Health & Science University  
[http://www.healthsciencefaculty.org/profess\\_sucess/univ\\_design.html](http://www.healthsciencefaculty.org/profess_sucess/univ_design.html)



# Expanding upon the idea...

○ Concepts of universal design can apply to:

- Facilities
- Academic programs
- Training / instruction
- Distance learning courses
- Websites





# Universal Design for Learning

- “Universal design is an approach to designing course instruction, materials, and content to benefit people of all learning styles without adaptation or retrofitting. Universal design provides equal access to learning, not simply equal access to information. Universal design allows the student to control the method of accessing information while the teacher monitors the learning process and initiates any beneficial methods.”

- The Ohio State University Partnership Grant for Universal Design  
<http://www.acs.ohio-state.edu/grants/dpg/fastfact/undesign.html>



# Who?

## Learners with differences in their:

- Vision
- Hearing
- Mobility
- Fine motor skills
- Organizational skills
- Attention span, Memory
- Learning styles
- Native language / literacy skills
- Ethnic background
- Quality of health
- Age
- Gender
- Computer equipment or Internet connection



Universal instructional design is based on the premise that ***all of us have some obstacle to our learning*** and that the accommodations typically reserved for those with disabilities are beneficial to everyone.

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# How?

- Inclusiveness
- Physical Access
- Delivery Methods
- Information Access
- Interaction
- Feedback
- Demonstration of Knowledge



Adapted from Universal Design of Instruction, by Sheryl Burgstahler, Ph.D., University of Washington;  
<http://www.washington.edu/doit/Brochures/Academics/instruction.html>

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# Plan

- Identify goals & essential content
- Provide guided notes
- Verify wheelchair accessibility
- Be prepared to offer additional accommodations as requested
- Planning ahead saves time in the long run





# Communicate



- Provide outline / syllabus
  - Training's requirements
  - Accommodation statement
  - Due dates or expectations
- Clarify any feedback or instructions
- Ask for questions
- Repeat concepts
- Give additional examples



# Don't Reinvent the Wheel

- Integrate natural supports
  - Study buddy





# Be Creative



## Use a variety of instructional methods

- Simultaneous auditory & visual presentation
- Peer mentoring
- Group discussions
- Cooperative learning situations
- Illustrations
- Handouts
- “Hands-on” experiences
- Video (with captioning)
- Brainstorming
- Case studies
- Role playing
- Worksheets / surveys
- Lectures



# Provide Context

- Relate new topic to one already learned
- Real-life example
- Current events
- Student needs





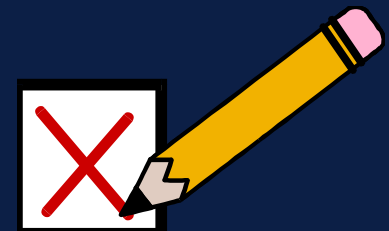
*“People learn differently. Rote memorization and parroting back to the professor may not be making the connection, so that [the learner] really understands...”*

Terry Wallace, Professor, University of Arizona



# Focus on Concept Mastery

- Allow multiple methods for learner to demonstrate understanding
  - Frequent exams, shorter in length
  - Limited and unlimited time exams
  - Take-home tests
  - Alternative test settings in quiet rooms
  - Short and long writing assignments
  - Group work
  - Oral presentations





# Utilize Modern Resources

- Use technology to increase accessibility



- Put materials on-line (in an accessible format)
- Use email, listservs
- Permit and encourage the use of adaptive technology
- Allow learner to tape record lecture or use note-takers
- Make sure media can be accessed using sight or hearing alone, or provide alternative



# Be Available



- Invite learners to contact you with questions/concerns
- Be open to requests for further accommodations
- Train staff
  - Etiquette, disability issues
  - Policies
  - Procedures for requesting accommodations
  - Knowledge of available services
  - TDD/TTY



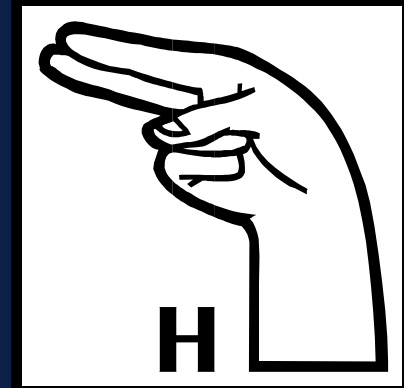
# Sound Familiar?

- ***Simply stated, Universal Instructional Design is good teaching.***
- With UID, learners may rely less on support systems
  - <http://www3.niu.edu/facdev/events/march02.htm>  
Northern Illinois University Faculty Events



# Universal vs. Specific

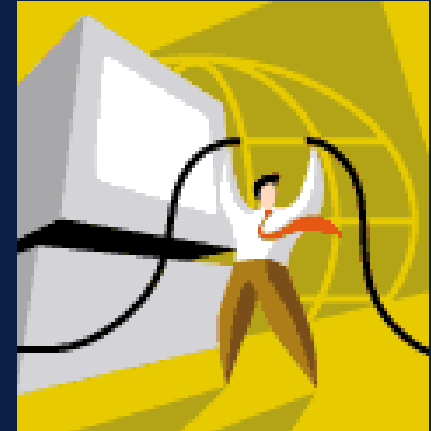
- Sign language interpreter
  - not all learners know sign language, so this accommodation is *specific* instead of universal





# Web Accessibility Tips

- Simple, consistent format & navigation
- Standard HTML or links to download plug-ins
- Large buttons
- Alt tags or long description
  - Text reader or images turned off for slow Internet connection
  - NULL value "" for placeholder graphics
- Descriptive language for links
  - Can be understood out of context – text readers can read only links
- Avoid frames & nested tables
  - Text reader cannot easily navigate these



- Use high contrast, simple backgrounds
  - Accommodate visual impairments
- Color-code only to enhance otherwise labeled items
  - Be sensitive to color-blindness
- Avoid flashing / fast-flickering text & images
  - Be aware of causing an epileptic seizure
- Caption video, transcribe audio
- Test your site in a variety of browsers
  - Text-based, multimedia with sound/images off
- Use accessibility-checking software
  - Bobby, A-Prompt, WAVE, UsableNet.com



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